



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Patent Application of:

DONALD HERZOG, et al

Serial No.: 10/810,322

Confirmation No.: 8016

Filed: March 26, 2004

For: MAPPING AND TRACKING BLOOD

FLOW USING REDUCED ELEMENT

**PROBE** 

Group Art Unit 3737

Examiner: Not Yet Assigned

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Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

## INFORMATION DISCLOSURE STATEMENT

Sir:

In accordance with the provisions of 37 C.F.R. §§ 1.97 and 1.98, applicant and his attorney respectfully request that the following patents and publications be made of record in the official United States Patent and Trademark Office file relating to the above-identified application. The citation of the following patents and publications should not be construed as an admission that they constitute prior art with respect to the present invention.

## U.S. Patent Nos.

5,148,810	5,840,033
5,261,408	5,911,692
5,291,892	5,922,962
5,409,010	5,928,151
5,546,807	5,971,927
5,623,930	6,066,096
5,701,898	6,135,971
5,808,962	6,148,095
	6,238,346
	6,524,253
	6,682,483

## Non-Patent Literature Documents

- C. KASAI, K. NAMEKAWA, A. KOYANO and R. OMOTO "Real-Time Two Dimensional Blood Imaging Using An Autocorrelation Technique", IEEE Transactions On Sonics and Ultrasonics, Vol. SU-32, no.3, pp 458-464, May 1985.
- K. FERRARA and G. DeANGELIS, "Color Flow Mapping", Ultrasound in Medicine and Biology", Vol. 23, no. 2, pp 321-345, March 1997.
- T. BUCK, et al., "Flow Quantification In Valvular Heart Disease Based On The Integral Of Backscattered Acoustic Power Using Doppler Ultrasound", PROC. IEEE, Vol. 88, no. 3 pp 307-330, March 2000.

All of the above-listed references are in the English language. In such circumstances, comments concerning the relevance of the foregoing references are considered unnecessary.

In order to facilitate the Examiner's citation of the patents and publications listed above, applicant's attorney has completed United States Patent and Trademark Office Form PTO/SB/08 (formerly PTO-1449). The completed Form is attached hereto for the Examiner's convenience.

No fees are believed to be due in connection with the submission of this

Information Disclosure Statement. If any such fees are due, the Examiner is hereby authorized to charge them to Deposit Account No. 501402.

Respectfully Submitted,

McCARTER & ENGLISH, LLP

Stephen Gigante, Reg. No. 42,576

For: John K. Kim Reg. No. 37,002

McCARTER & ENGLISH, LLP Four Gateway Center 100 Mulberry Street Newark, New Jersey 07102 (973) 622-4444

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Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet of

Complete if Known				
Application Number	10/810,322			
Filing Date	March 26, 2004			
First Named Inventor	Donald Herzog			
Art Unit	3737			
Examiner Name	TBA			
Attorney Docket Number	93184/00012			

U.S. PATENT DOCUMENTS						
Examiner Initials	Cite No.1	Document Number  Number Kind Code  (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
		US- 5,148,810	09/1992	Maslak, et al.		
		US- 5,261,408	11/1993	Maslak, et al.		
· -		US- 5,291,892	03/1994	O'Donnell		
		US- 5,409,010	04/1995	Beach, et al.		
		US- 5,546,807	08/1996	Oxaal, et al.		
		US- 5,623,930	04/1997	Wright, et al.		
		US- 5,701,898	12/1997	Adam, et al.		
		US- 5,808,962	09/1998	Steinberg, et al.		
		US- 5,840,033	11/1998	Takeuchi		
		US- 5,911,692	06/1999	Hussain, et al.		
		US- 5,922,962	07/1999	Israk, et al.		
		US- 5,928,151	07/1999	Hossack, et al.		
		US- 5,971,927	10/1999	Mine	·	
		US- 6,066,096	05/2000	Smith, et. al.		
		US- 6,135,971	10/2000	Hutchinson, et al.		
		US- 6,148,095	11/2000	Prause et al.`		
		US- 6,238,346	5/2000	Mason		
		US- 6,524,253	2/2003	Abend		
		US- 6,682,483	1/2004	Abend		
		US-				

	FOREIGN PATENT DOCUMENTS							
Examiner Cite Initials No.1	Foreign Patent Document			Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant		
		Office <sup>3</sup>	Number <sup>4</sup>	Kind <sup>5</sup> (if known)	MM-DD-YYYY	Applicant of Cited Document	Passages or Relevant Figures Appear	T6
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Examiner	 Date	
Signature	Considered	

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Substitute for form 1449B/PTO		Complete if Known				
		Application Number	10/810,322			
INFO	DRMATIC	DN D	ISCLOSURE	Filing Date	March 26, 2004	
STATEMENT BY APPLICANT	First Named Inventor	Donald Herzog				
STATEMENT BY AFFEIGANT		Art Unit	3737			
	(use as mar	ny sheet	s as necessary)	Examiner Name	TBA	
Sheet	2	of	2	Attorney Docket Number	93184/00012	

	OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>			
		C. KASAI, K. NAMEKAWA, A. KOYANO and R.OMOTO, "Real-Time Two Dimensional Blood Imaging Using An Autocorrelation Technique", IEEE Transactions On Sonics and Ultrasonics, Vol. SU-32, no. 3, pp 458-464, May 1985.				
		K. FERRARA and G. DE ANGELIS, "Color Flow Mapping", Ultrasound in Medicine and Biology, Vol. 23, no. 2, pp 321-345, March 1997.				
		T. BUCK, et al., "Flow Quantification in Valvular Heart Disease Based on the Integral of Backscattered Acousite Power Using Doppler Ultrasound", PROC. IEEE, vol. 88, no. 3, pp 307-330, March 2000.				
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<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not

<sup>&</sup>lt;sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.